

Name: \_\_\_\_\_

**at1110paper\_practice\_test (v22)**

1. Expand the following expression into standard form.

$$(7x - 2)(3x - 5)$$

$$21x^2 - 35x - 6x + 10$$

$$21x^2 - 41x + 10$$

2. Solve the equation.

$$(4x + 9)(5x + 3) = 0$$

$$x = \frac{-9}{4} \quad x = \frac{-3}{5}$$

3. Expand the following expression into standard form.

$$(3x + 5)(3x - 5)$$

$$9x^2 - 15x + 15x - 25$$

$$9x^2 - 25$$

4. Expand the following expression into standard form.

$$(9x - 2)^2$$

$$81x^2 - 18x - 18x + 4$$

$$81x^2 - 36x + 4$$

5. Factor the expression.

$$x^2 + 2x - 24$$

$$(x + 6)(x - 4)$$

6. Factor the expression.

$$49x^2 - 16$$

$$(7x + 4)(7x - 4)$$

7. Solve the equation with factoring by grouping.

$$8x^2 - 6x - 20x + 15 = 0$$

$$(2x - 5)(4x - 3) = 0$$

$$x = \frac{5}{2} \quad x = \frac{3}{4}$$

8. Solve the equation.

$$7x^2 + 9x + 8 = 5x^2 - 4x + 2$$

$$2x^2 + 13x + 6 = 0$$

$$(2x + 1)(x + 6) = 0$$

$$x = \frac{-1}{2} \quad x = -6$$